

STN Columbus

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
 NEWS 2 "Ask CAS" for self-help around the clock
 NEWS 3 SEP 09 CA/Caplus records now contain indexing from 1907 to the
 present
 NEWS 4 AUG 05 New pricing for EUROPATFULL and PCTFULL effective
 August 1, 2003
 NEWS 5 AUG 13 Field Availability (/FA) field enhanced in BEILSTEIN
 NEWS 6 AUG 18 Data available for download as a PDF in RDISCLOSURE
 NEWS 7 AUG 18 Simultaneous left and right truncation added to PASCAL
 NEWS 8 AUG 18 FROSTI and KOSMET enhanced with Simultaneous Left and Righ
 Truncation
 NEWS 9 AUG 18 Simultaneous left and right truncation added to ANABSTR
 NEWS 10 SEP 22 DIPPR file reloaded
 NEWS 11 SEP 25 INPADOC: Legal Status data to be reloaded
 NEWS 12 SEP 29 DISSABS now available on STN
 NEWS 13 OCT 10 PCTFULL: Two new display fields added
 NEWS 14 OCT 21 BIOSIS file reloaded and enhanced
 NEWS 15 OCT 28 BIOSIS file segment of TOXCENTER reloaded and enhanced
 NEWS 16 NOV 24 MSDS-CCOHS file reloaded

NEWS EXPRESS NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c, CURRENT
 MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
 AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
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 NEWS INTER General Internet Information
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 NEWS PHONE Direct Dial and Telecommunication Network Access to STN
 NEWS WWW CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 14:28:10 ON 01 DEC 2003

=> file registry

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'REGISTRY' ENTERED AT 14:28:19 ON 01 DEC 2003

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STRUCTURE FILE UPDATES: 30 NOV 2003 HIGHEST RN 622330-21-6

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DICTIONARY FILE UPDATES: 30 NOV 2003 HIGHEST RN 622330-21-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

L1 STRUCTURE UPLOADED

=> d l1 str

L1 HAS NO ANSWERS

'STR' IS NOT A VALID STRUCTURE FORMAT KEYWORD

Structure Formats

SIA ----- Structure Image, Attributes, and map table if it contains
data. (Default)

SIM ----- Structure Image.

SAT ----- Structure Attributes and map table if it contains data.

SCT ----- Structure Connection Table and map table if it contains
data.

SDA ----- All Structure Data (image, attributes, connection table and
map table if it contains data).

NOS ----- NO Structure data.

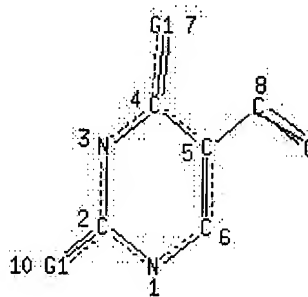
ENTER STRUCTURE FORMAT (SIA), SCT, SDA, SIM, SAT, NOS:end

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L1 STR

0 11 S 12



Page 1-A

9

Page 1-B

VAR G1=11/12

NODE ATTRIBUTES:

| | | | |
|-------|------|----|---|
| NSPEC | IS R | AT | 1 |
| NSPEC | IS R | AT | 2 |
| NSPEC | IS R | AT | 3 |
| NSPEC | IS R | AT | 4 |

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NSPEC IS R AT 5
 NSPEC IS R AT 6
 NSPEC IS C AT 7
 NSPEC IS C AT 8
 NSPEC IS C AT 9
 NSPEC IS C AT 10
 DEFAULT MLEVEL IS ATOM
 MLEVEL IS CLASS AT 8 9 11 12
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

=> s l1 full
 FULL SEARCH INITIATED 14:29:21 FILE 'REGISTRY'
 FULL SCREEN SEARCH COMPLETED - 2151 TO ITERATE

100.0% PROCESSED 2151 ITERATIONS 1211 ANSWERS
 SEARCH TIME: 00.00.01

L2 1211 SEA SSS FUL L1

| | | |
|----------------------|------------|---------|
| => file caplus | | |
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 148.55 | 148.76 |

FILE 'CAPLUS' ENTERED AT 14:29:26 ON 01 DEC 2003
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FILE COVERS 1907 - 1 Dec 2003 VOL 139 ISS 23
 FILE LAST UPDATED: 30 Nov 2003 (20031130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l2
 L3 617 L2
 => s l3 and py<1992
 14064135 PY<1992
 L4 121 L3 AND PY<1992
 => s l4 and (DNA or nucleic)

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638014 DNA

149153 NUCLEIC

L5 45 L4 AND (DNA OR NUCLEIC)

=> d 1-45 ti

L5 ANSWER 1 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Relationships between nucleotide incorporation rates and molecular parameters obtained by molecular modeling and chromatography

L5 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Preparation of fluorescence-labeled DNA by polymerase chain reaction (PCR)

L5 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Antimalarial compositions containing pyrimidine analog inhibitors of nucleic acid biosynthesis

L5 ANSWER 4 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Spectrally resolvable rhodamine dyes for nucleic acid sequence determination

L5 ANSWER 5 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Nucleic acid related compounds. 65. New syntheses of 1-(β -D-arabinofuranosyl)-5(E)-(2-iodovinyl)uracil (IVArAU) from vinylsilane precursors. Radioiodine uptake as a marker for thymidine kinase herpes viral infections

L5 ANSWER 6 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Preparation of crosslinking oligonucleotides as nucleic acid hybridization probes

L5 ANSWER 7 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Palladium-catalyzed approach to 5-substituted uracil and uridine derivatives

L5 ANSWER 8 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Analysis of mutations in the thymidine kinase genes of drug-resistant varicella-zoster virus populations using the polymerase chain reaction

L5 ANSWER 9 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Nucleic acid related compounds. 61. Conversion of vinylsilanes to vinyl halides with xenon difluoride and metal halides. A versatile new route to 5-(2-halovinyl)pyrimidine nucleosides

L5 ANSWER 10 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Nucleic acid related compounds. 59. Solvent, not palladium oxidation state, is the primary determinant for successful coupling of terminal alkynes with idonucleosides

L5 ANSWER 11 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI DNA dynamics from a spin probe: dependence of probe motion on tether length

L5 ANSWER 12 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Application of chromatographic retention data in an investigation of a quantitative structure-nucleotide incorporation rate relationship

L5 ANSWER 13 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Palladium-catalyzed alkylations in aqueous media

L5 ANSWER 14 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

TI Automated DNA sequence analysis and DNA fingerprinting

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- L5 ANSWER 15 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Mapping restriction sites on **DNA** with fluorescent labels and interrupted-palindrome restriction enzymes
- L5 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Correlation of nucleotide incorporation rate and HPLC retention parameters of substituted nucleosides
- L5 ANSWER 17 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Sequence- and structure-dependent **DNA** base dynamics: synthesis, structure, and dynamics of site, and sequence specifically spin-labeled **DNA**
- L5 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Palladium-catalyzed synthesis of alkynylamino nucleosides. A universal linker for **nucleic acids**
- L5 ANSWER 19 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Effect of manganese ions on the incorporation of dideoxynucleotides by bacteriophage T7 **DNA** polymerase and Escherichia coli **DNA** polymerase I
- L5 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Preparation of 5-(3-aminoprop-1-ynyl)deoxyuridine derivatives and their use for synthesis of **DNA** and RNA labeled with nonradioactive markers.
- L5 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI **DNA** structural data from a dynamics probe. The dynamic signatures of single stranded, hairpin-looped, and duplex forms of **DNA** are distinguishable
- L5 ANSWER 22 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Design and synthesis of fluorescently labeled chain terminators for automated sequencing of **DNA**
- L5 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Preparation of (aminoalkynyl)nucleotides as intermediates for fluorescent chain terminators for **DNA** sequencing
- L5 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI **DNA** sequencing by fluorescence analysis
- L5 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Preparation of base-modified nucleosides suitable for non-radioactive label attachment and their incorporation into synthetic oligodeoxyribonucleotides
- L5 ANSWER 26 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Potent activity of 5-fluoro-2'-deoxyuridine and related compounds against thymidine kinase-deficient (TK-) herpes simplex virus: targeted at thymidylate synthase
- L5 ANSWER 27 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI A rigid and nonperturbing probe for duplex **DNA** motion
- L5 ANSWER 28 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Synthesis and application of derivatizable oligonucleotides
- L5 ANSWER 29 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI A system for rapid **DNA** sequencing with fluorescent chain-terminating dideoxynucleotides

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- L5 ANSWER 30 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Substrate specificity of **DNA** polymerases. II. 5-(1-Alkynyl)-dUTPs as substrates of the Klenow **DNA** polymerase enzyme
- L5 ANSWER 31 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI The synthesis and biological properties of some 5-substituted-2'-deoxyuridines
- L5 ANSWER 32 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Rapid determination of thymidylate synthase activity and its inhibition in intact L1210 leukemia cells in vitro
- L5 ANSWER 33 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Incorporation of 5-substituted pyrimidine nucleoside analogs into **DNA** of a thymidylate synthetase-deficient murine FM3A carcinoma cell line
- L5 ANSWER 34 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Strategies for the measurement of the inhibitory effects of thymidine analogs on the activity of thymidylate synthase in intact murine leukemia L1210 cells
- L5 ANSWER 35 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Thymidylate synthetase-deficient mouse FM3A mammary carcinoma cell line as a tool for studying the thymidine salvage pathway and the incorporation of thymidine analogs into host cell **DNA**
- L5 ANSWER 36 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Induction of sister-chromatid exchange by 5-substituted 2'-deoxyuridines
- L5 ANSWER 37 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI **Nucleic** acid related compounds. 39. Efficient conversion of 5-iodo to 5-alkynyl and derived 5-substituted uracil bases and nucleosides
- L5 ANSWER 38 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI **Nucleic** acid related compounds. 40. Synthesis and biological activities of 5-alkynyluracil nucleosides
- L5 ANSWER 39 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI **Nucleic** acid related compounds. 31. Smooth and efficient palladium-copper catalyzed coupling of terminal alkynes with 5-iodouracil nucleosides
- L5 ANSWER 40 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Thymidylate synthetase as target enzyme for the inhibitory activity of 5-substituted 2'-deoxyuridines on mouse leukemia L1210 cell growth
- L5 ANSWER 41 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Effects of E-5-(2-bromovinyl)-2'-deoxyuridine and other selective antiherpes compounds on the induction of retrovirus particles in mouse BALB/3T3 cells
- L5 ANSWER 42 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Comparative study of the potency and selectivity of antiherpes compounds
- L5 ANSWER 43 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Antiviral **nucleic** acid derivatives. III. Crystal structure of 5-ethynyl-2'-deoxyuridine
- L5 ANSWER 44 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
TI Incorporation of 5-substituted uracil derivatives into **nucleic** acids. Part IV. The synthesis of 5-ethynyluracil

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L5 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN
 TI The preparation and properties of some 5-substituted uracil derivatives

=> d 23-25, 2, 6, 20 bib ab hitstr

L5 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1988:493540 CAPLUS

DN 109:93540

TI Preparation of (aminoalkynyl)nucleotides as intermediates for fluorescent chain terminators for DNA sequencing

IN Hobbs, Frank Worden, Jr.; Cocuzza, Anthony Joseph

PA du Pont de Nemours, E. I., and Co., USA

SO Eur. Pat. Appl., 40 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | EP 251786 | A2 | 19880107 | EP 1987-305844 | 19870701 <-- |
| | EP 251786 | A3 | 19891206 | | |
| | EP 251786 | B1 | 19941130 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | US 5047519 | A | 19910910 | US 1987-57565 | 19870612 <-- |
| | CA 1340022 | A1 | 19980901 | CA 1987-540946 | 19870630 |
| | DK 8703375 | A | 19880103 | DK 1987-3375 | 19870701 <-- |
| | NO 8702757 | A | 19880104 | NO 1987-2757 | 19870701 <-- |
| | NO 171981 | B | 19930215 | | |
| | NO 171981 | C | 19930526 | | |
| | ES 2066760 | T3 | 19950316 | ES 1987-305844 | 19870701 |
| | JP 63152364 | A2 | 19880624 | JP 1987-166224 | 19870702 <-- |
| | JP 08005908 | B4 | 19960124 | | |
| | JP 09124636 | A2 | 19970513 | JP 1996-221531 | 19870702 |
| | JP 10158530 | A2 | 19980616 | JP 1997-304768 | 19870702 |
| | US 5151507 | A | 19920929 | US 1991-713906 | 19910612 |
| | DK 9300819 | A | 19930707 | DK 1993-819 | 19930707 |
| | DK 9300820 | A | 19930707 | DK 1993-820 | 19930707 |
| | US 5625081 | A | 19970429 | US 1994-181284 | 19940113 |
| | US 5558991 | A | 19960924 | US 1994-192915 | 19940207 |
| | US 5608063 | A | 19970304 | US 1995-412409 | 19950328 |
| PRAI | US 1986-881372 | | 19860702 | | |
| | US 1987-57565 | | 19870612 | | |
| | US 1987-57566 | | 19870612 | | |
| | JP 1994-119539 | | 19870702 | | |
| | JP 1996-221531 | | 19870702 | | |
| | US 1991-780346 | | 19911022 | | |
| | US 1991-780347 | | 19911022 | | |
| | US 1992-981148 | | 19921124 | | |
| | US 1993-981026 | | 19930217 | | |
| | US 1994-181358 | | 19940113 | | |
| OS | MARPAT 109:93540 | | | | |
| AB | The title compds. [I-IV; R = H, NH ₂ ; R ₁ = R ₂ R ₃ NZC≡C; R ₂ , R ₃ = H, C ₁ -4 alkyl, protecting group; R ₄ = sugar moiety Q, Q ₁ , ether moiety Q ₂ ; R ₅ = H, (HO)2P(O), H ₃ P2O ₆ , H ₄ P3O ₉ ; when R ₇ = R ₈ = H, then R ₆ = H, OH, F, NH ₂ , N ₃ ; when R ₇ = H, R ₈ = OH, then R ₆ = H, OH; when R ₇ = OH, R ₈ = H, then R ₆ = OH; Z = diradical moiety of 1-20 atoms] and their salts were prepd. for coupling with fluorescent dyes to prep. fluorescent chain terminators for DNA sequencing. 6-Methoxy-2-(methylthio)-9-(2,3-dideoxy-5-O-trityl-β-D-ribofuranosyl)-7-deazapurine, prepd. in 5 steps from 6-methoxy-2-(methylthio)-7-deazapurine, was iodinated by treatment with | | | | |

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N-iodosuccinimide and the 7-iodo deriv. was de-O-methylated, oxidized to the sulfoxide and ammonolyzed, and detritylated to give azaguanosine IV (R = NH₂, R₁ = iodo, R₄ = Q, R₅-R₈ = H). This was coupled with HC≡CCH₂NHCOCF₃ in the presence of (Ph₃P)₄Pd/CuI catalyst and the product converted to the triphosphate and deprotected to give IV (R = NH₂, R₁ = H₂NCH₂C≡C, R₄ = Q, R₅ = H₄P₃O₉, R₆-R₈ = H). This was condensed with a xanthene deriv. (prepn. given) to give fluorescent chain terminator V.

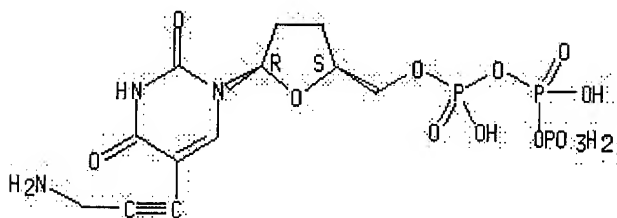
IT 114748-59-3P 114748-60-6P 115899-40-6P
115899-42-8P 115899-44-0P 115899-45-1P
115899-46-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent chain terminator intermediate, for
DNA sequencing)

RN 114748-59-3 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 5-(3-amino-1-propynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)

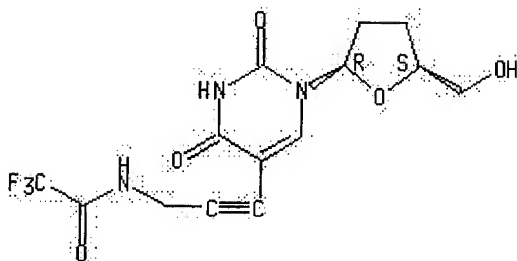
Absolute stereochemistry.



RN 114748-60-6 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[3-[(trifluoroacetyl)amino]-1-propynyl]- (9CI)
(CA INDEX NAME)

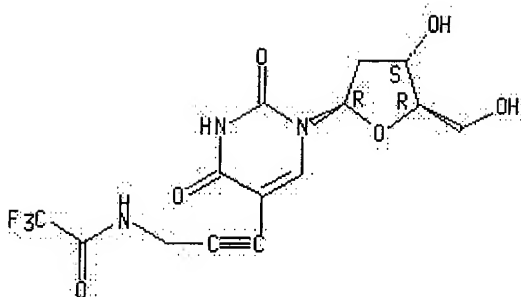
Absolute stereochemistry.



RN 115899-40-6 CAPLUS

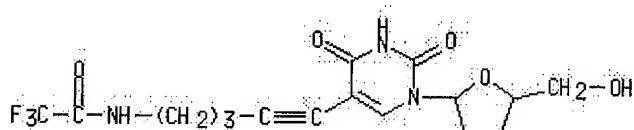
CN Uridine, 2'-deoxy-5-[3-[(trifluoroacetyl)amino]-1-propynyl]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.



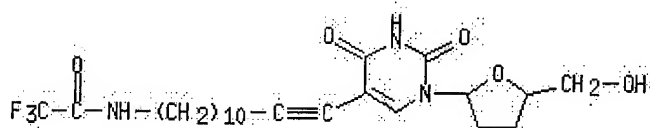
RN 115899-42-8 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[5-[(trifluoroacetyl)amino]-1-pentynyl]- (9CI)
(CA INDEX NAME)



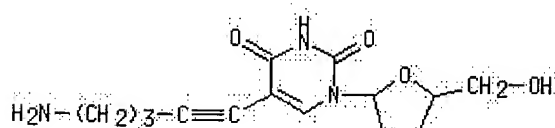
RN 115899-44-0 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[12-[(trifluoroacetyl)amino]-1-dodecynyl]- (9CI)
(CA INDEX NAME)



RN 115899-45-1 CAPLUS

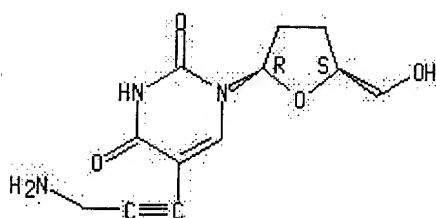
CN Uridine, 5-(5-amino-1-pentynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)



RN 115899-46-2 CAPLUS

CN Uridine, 5-(3-amino-1-propynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L5 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1988:401856 CAPLUS

DN 109:1856

TI DNA sequencing by fluorescence analysis

IN Prober, James Merrill; Dam, Rudy Johan; Robertson, Charles William, Jr.; Hobbs, Frank Worden, Jr.; Trainor, George Leonard

PA du Pont de Nemours, E. I., and Co., USA

SO Eur. Pat. Appl., 66 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|--------------|
| PI | EP 252683 | A2 | 19880113 | EP 1987-305848 | 19870701 <-- |
| | EP 252683 | A3 | 19891123 | | |
| | EP 252683 | B1 | 19950118 | | |
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| | NO 8702758 | A | 19880104 | NO 1987-2758 | 19870701 <-- |
| | NO 174369 | B | 19940110 | | |
| | NO 174369 | C | 19940420 | | |
| | JP 01180455 | A2 | 19890718 | JP 1987-166223 | 19870702 <-- |
| | JP 07121239 | B4 | 19951225 | | |
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| | JP 10158530 | A2 | 19980616 | JP 1997-304768 | 19870702 |
| | US 5242796 | A | 19930907 | US 1991-780346 | 19911022 |
| | US 5332666 | A | 19940726 | US 1991-780347 | 19911022 |
| | US 5306618 | A | 19940426 | US 1992-821569 | 19920116 |
| | US 5625081 | A | 19970429 | US 1994-181284 | 19940113 |
| | US 5558991 | A | 19960924 | US 1994-192915 | 19940207 |
| | JP 07005170 | A2 | 19950110 | JP 1994-119539 | 19940509 |
| | US 5608063 | A | 19970304 | US 1995-412409 | 19950328 |

PRAI US 1986-881372 19860702
 US 1987-57566 19870612
 JP 1994-119539 19870702
 JP 1996-221531 19870702
 US 1991-780346 19911022
 US 1991-780347 19911022
 US 1992-981148 19921124
 US 1993-981026 19930217
 US 1994-181358 19940113

OS MARPAT 109:1856

AB A fluorescence-based system for DNA sequence anal. is described. A set of fluorescence-labeled DNA chain terminators was generated. Each of the 4 chain terminators corresponding to the 4 nucleotide basis in DNA carries a different fluorescent compd. DNA fragments to be sequenced can be labeled with these fluorescent compds. in a single vessel. The labeled DNA fragments of varying lengths are then sepd. by electrophoresis. A photometric detection system is used to identify the labeled bases and det. the DNA sequence.

IT 114748-59-3P 114748-60-6P 114748-72-0P

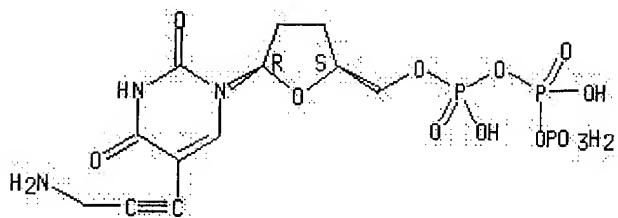
RL: PREP (Preparation)

(prepn. of, detn. of DNA sequences by fluorescence anal. in relation to)

RN 114748-59-3 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 5-(3-amino-1-propynyl)-2',3'-dideoxy- (9CI) (CA INDEX NAME)

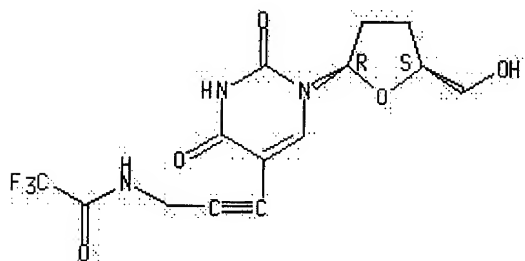
Absolute stereochemistry.



RN 114748-60-6 CAPLUS

CN Uridine, 2',3'-dideoxy-5-[3-[(trifluoroacetyl)amino]-1-propynyl]- (9CI)
(CA INDEX NAME)

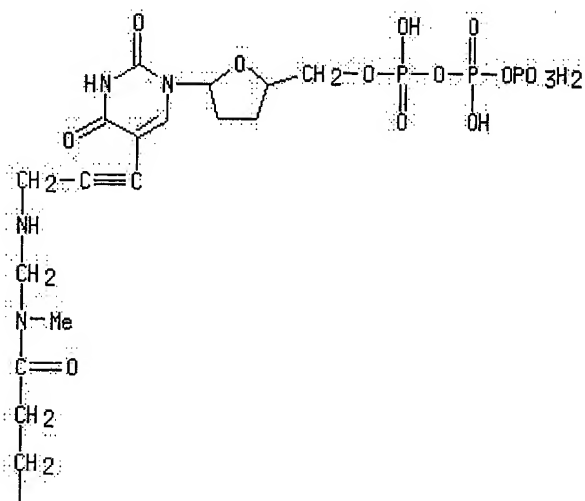
Absolute stereochemistry.

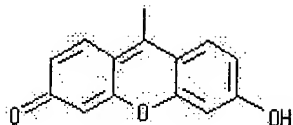


RN 114748-72-0 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 2',3'-dideoxy-5-[3-[[[3-(6-hydroxy-3-oxo-3H-xanthen-9-yl)-1-oxopropyl]methylamino]methyl]amino]-1-propynyl]- (9CI) (CA INDEX NAME)

PAGE 1-A





Full Text

AN 1988:187182 CAPLUS

DN 108:187182

TI Preparation of base-modified nucleosides suitable for non-radioactive label attachment and their incorporation into synthetic oligodeoxyribonucleotides

AU Haralambidis, Jim; Chai, Miao; Tregear, Geoffrey W.

CS Howard Florey Inst. Exp. Physiol. Med., Univ. Melbourne, Parkville, 3052,
Australia

SO Nucleic Acids Research (1987), 15(12), 4857-76

CODEN: NARHAD; ISSN: 0305-1048

DT Journal

LA English

OS CASREACT 108:187182

AB A very mild and efficient procedure has been developed for the prepn. of C-5 substituted deoxyuridines. The substituent carries a masked primary aliph. amino group. These compds. are readily converted into their phosphoramidites and can be used to prep. oligonucleotides carrying one or more aliph. amino groups. Fluorescein isothiocyanate coupled to these compds. gives oligonucleotide probes carrying multiple fluorescein labels. These compds. have a free 5'-hydroxy group enabling additional 5'- end radioactive labeling for evaluation of their hybridization characteristics. Oligonucleotides carrying a long (11 atom) linker arm to the fluorescein hybridize more efficiently to mRNA than those carrying a short (4 atom) arm. The long linker arm derivs. are comparable to underivatized oligonucleotides in hybridizing to mRNA.

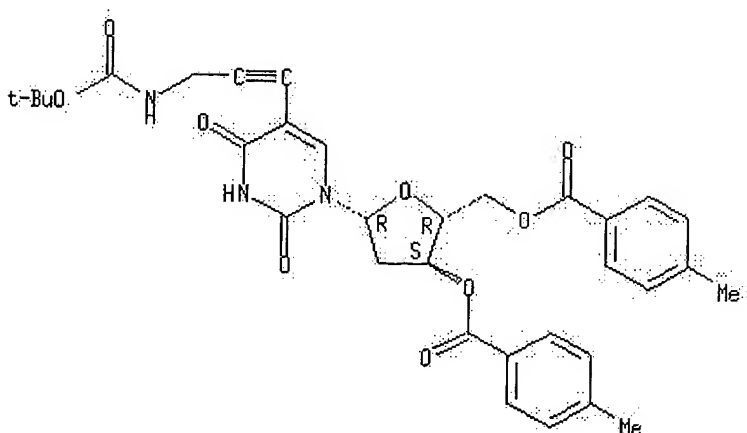
IT 114079-29-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and detoluoylation of)

RN 114079-29-7 CAPLUS

CN Carbamic acid, [3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



STN Columbus

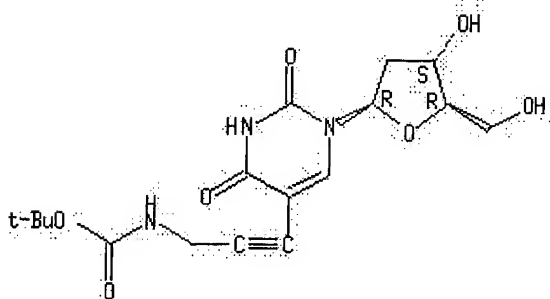
IT 114079-30-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dimethoxytritylation of)

RN 114079-30-0 CAPLUS

CN Carbamic acid, [3-[1-(2-deoxy-β-D-erythro-pentofuranosyl)-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



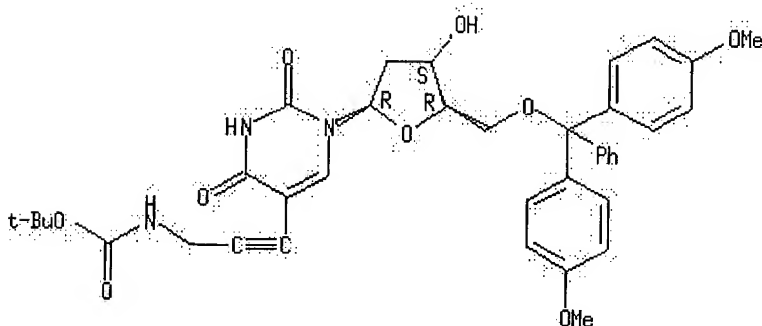
IT 114079-31-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with bis(diisopropylamino)methoxyphosphine)

RN 114079-31-1 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 114079-33-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with nitrophenyl amino hexanoate deriv.)

RN 114079-33-3 CAPLUS

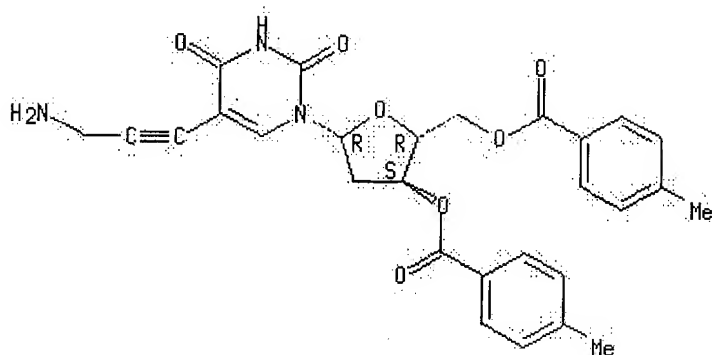
CN Uridine, 5-(3-amino-1-propynyl)-2'-deoxy-, 3',5'-bis(4-methylbenzoate), mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 114079-32-2

CMF C28 H27 N3 O7

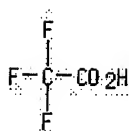
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 114079-34-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

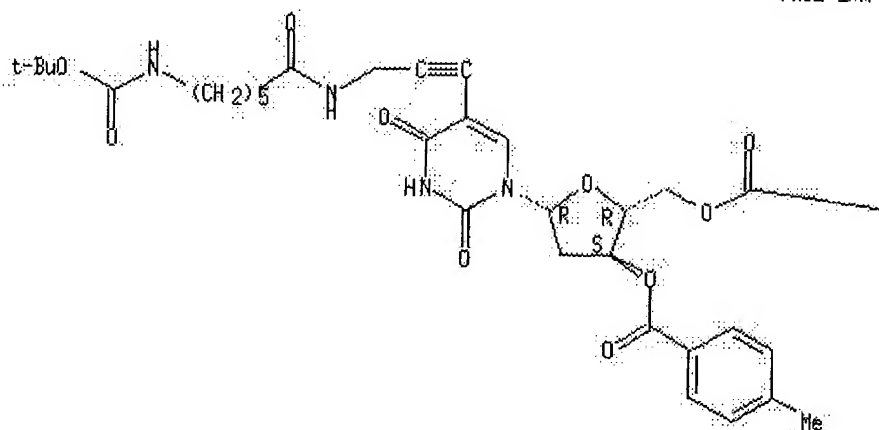
(prepn. and sequential detoluoylation and dimethoxytritylation of)

RN 114079-34-4 CAPLUS

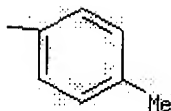
CN Carbamic acid, [6-[[3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 114079-35-5P 114079-36-6P 114103-42-3P

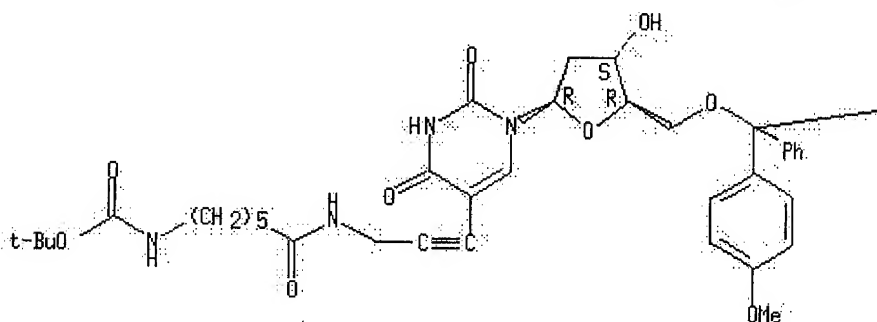
RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, intermediate in synthesis of fluorescent-labeled
 oligodeoxyribonucleotides)

RN 114079-35-5 CAPLUS

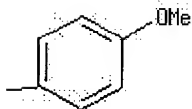
CN Carbamic acid, [6-[[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-
 β -D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-
 pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



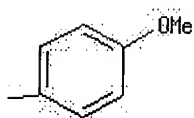
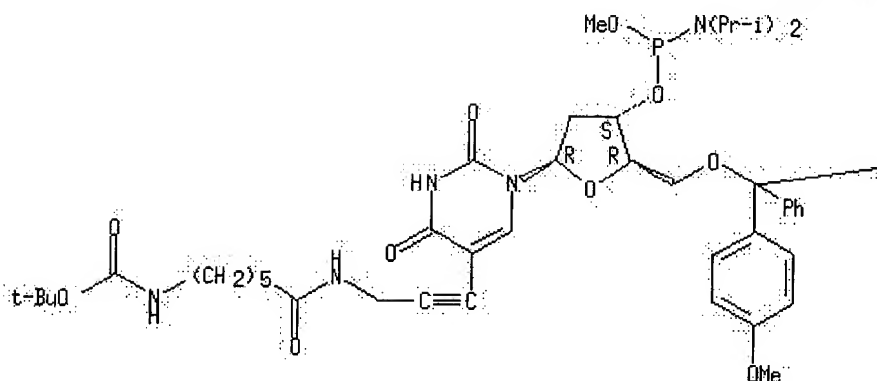
PAGE 1-B



RN 114079-36-6 CAPLUS

CN Carbamic acid, [6-[[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-
 [[bis(1-methylethyl)amino]methoxyphosphino]-2-deoxy- β -D-erythro-
 pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-
 propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX
 NAME)

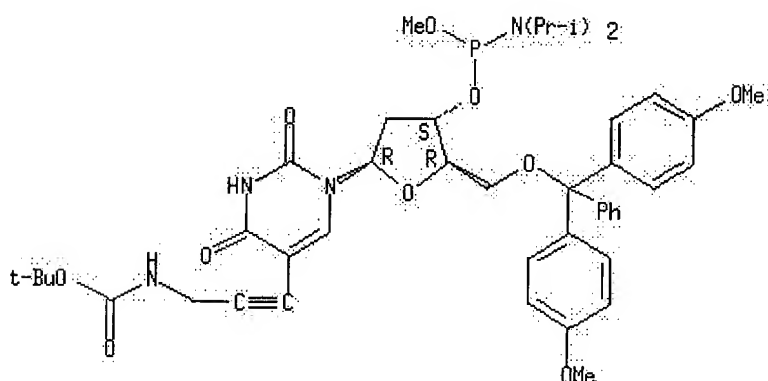
Absolute stereochemistry.



RN 114103-42-3 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1992:16706 CAPLUS

DN 116:16706

TI Preparation of fluorescence-labeled DNA by polymerase chain reaction (PCR)

IN Manabe, Nobuhisa; Uchimura, Yuka; Miyazaki, Keiko; Kato, Ikunoshin

PA Takara Shuzo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

STN Columbus

CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------|------|----------|-----------------|--------------|
| PI | JP 03210197 | A2 | 19910913 | JP 1990-3437 | 19900112 <-- |
| | JP 3001919 | B2 | 20000124 | | |
| PRAI | JP 1990-3437 | | 19900112 | | |

AB The DNA is amplified by PCR in the presence of ≥ 1 fluorescence-labeled nucleotides to prep. fluorescence-labeled DNA product, which is readily detectable without using radioactive substances. Amplification of human placenta DNA using c-Kr-ras/61 primers in the presence of fluorescence-labeled dUTP (FTC-AP-dUTP) was shown. The amplified DNA product was visibly detectable using immobilized oncogene probes (c-Ka-ras/61 Gly, Ser, and Val types).

IT 137993-59-0

RL: PROC (Process)

(polymerase chain reaction in presence of, for easy visible detection of amplified product)

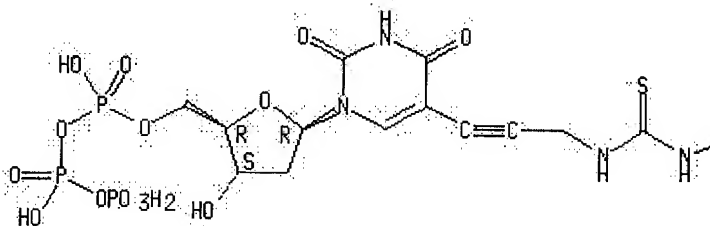
RN 137993-59-0 CAPLUS

CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]-1-propynyl]- (9CI) (CA INDEX NAME)

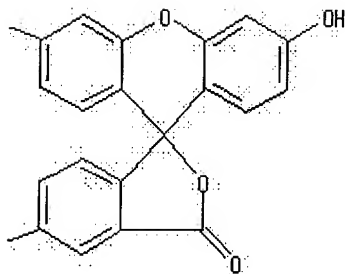
Absolute stereochemistry.

PAGE 1-A

HO



PAGE 1-B

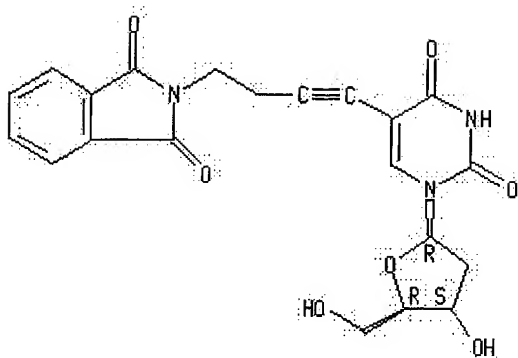


STN Columbus

AN 1991:409259 CAPLUS
 DN 115:9259
 TI Preparation of crosslinking oligonucleotides as nucleic acid hybridization probes
 IN Petrie, Charles R.; Meyer, Richard B.; Tabone, John C.; Hurst, Gerald D.
 PA Microprobe Corp., USA
 SO PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 8

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | WO 9014353 | A1 | 19901129 | WO 1990-US2740 | 19900515 <-- |
| | W: CA, JP | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE | | | | |
| | EP 472648 | A1 | 19920304 | EP 1990-908844 | 19900515 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE | | | | |
| | JP 04507402 | T2 | 19921224 | JP 1990-508242 | 19900515 |
| | US 5824796 | A | 19981020 | US 1994-334490 | 19941104 |
| PRAI | US 1989-353857 | A | 19890518 | | |
| | US 1988-250474 | B2 | 19880928 | | |
| | WO 1990-US2740 | W | 19900515 | | |
| | US 1993-49807 | B1 | 19930420 | | |
| OS | MARPAT 115:9259 | | | | |
| AB | <p>R1-B-(CH2)q-Yr-(CH2)m-A1 [R1 = H, sugar (analog) moiety optionally contg. Q1, Q2, Q3, P, etc.; Q1 = OH, OP(O)(OH)2, OP(O)(OH)OP(O)(OH)2; Q2 = O, S; Q3 = CH2R2, SR2, OR2, NR2R3; R2, R3 = H, alkyl; B = nucleic acid base or an analog thereof; Y = functional linking group; m, q = 0, 1-8 integer; r = 0, 1; A1 = leaving group], useful as nucleic acid hybridization probes and therefore useful for diagnosis of diseases, were prepd. Reaction of 5-iodo-2'-deoxyuridine in DMF with 4-phthalimido-1-butyne in the presence of (Ph3P)4Pd and Et3N at 60° for 3 h gave 5-(4-phthalimido-1-butyne-1-yl)-2'-deoxyuridine, whose hydrogenation over Raney Ni gave 5-(4-phthalimidobutyl)-2'-deoxyuridine. 5-[3-(Trifluoroacetamido)propyl]-2'-deoxyuridine was prepd. similarly and converted according to known methods into 5'-O-(dimethoxytrityl)-2'-deoxyuridine-3'-(N,N-diisopropyl)phosphoramidite cyanoethyl ester, which was used in the automated synthesis of 3'-CT TCC U1TG TAG CTG-5' [I; U1 = 5-(3-aminopropyl)-2'-deoxyuridine residue]. This was reacted with N-(iodoacetoxy)succinimide to give II [U1 = 5-(3-iodoacetamidopropyl)-2'-uridine residue], whose crosslinking to a 30-mer oligonucleotide derived from human papillomavirus (HPV) was evaluated.</p> | | | | |
| IT | 134140-85-5P | | | | |
| | <p>RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)</p> <p>(prepn. and hydrogenation of)</p> | | | | |
| RN | 134140-85-5 CAPLUS | | | | |
| CN | <p>Uridine, 2'-deoxy-5-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-butyne]- (9CI) (CA INDEX NAME)</p> | | | | |

Absolute stereochemistry.



L5 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text

AN 1989:439836 CAPLUS

DN 111:39836

TI Preparation of 5-(3-aminoprop-1-ynyl)deoxyuridine derivatives and their use for synthesis of DNA and RNA labeled with nonradioactive markers.

IN Haralambidis, Jim

PA Florey, Howard, Institute of Experimental Physiology and Medicine, Australia

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 8810264 | A1 | 19881229 | WO 1988-AU207 | 19880624 <-- |
| | W: AU, JP, US | | | | |
| | RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE | | | | |
| | AU 8819909 | A1 | 19890119 | AU 1988-19909 | 19880624 <-- |
| | AU 598946 | B2 | 19900705 | | |
| | EP 366685 | A1 | 19900509 | EP 1988-905594 | 19880624 <-- |
| | EP 366685 | B1 | 19941019 | | |
| | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| | JP 02504144 | T2 | 19901129 | JP 1988-505657 | 19880624 <-- |
| | JP 2828642 | B2 | 19981125 | | |
| | CA 1340032 | A1 | 19980908 | CA 1988-570427 | 19880624 |
| PRAI | AU 1987-2666 | A | 19870624 | | |
| | WO 1988-AU207 | A | 19880624 | | |

OS MARPAT 111:39836

AB The title nucleoside derivs. [I; Y = H, (un)protected OH; X = H, phosphonate group, P(OQ)NR₁R₂; R₁, R₂ = (un)branched, (un)substituted alkyl; Q = phosphate protecting group; Z = H, phosphate, triphosphate group; X₁ = (un)branched (1-15 alkyl; R = amino protecting group, A, Y₁NHA; A = fluorophore (e.g. fluorescein) or other non-radioactive detectable group (e.g. biotin, avidin, colloidal Au or Ag, ferritin, and enzymes such as β-galactosidase, urease, peroxidase); γ₁ = (un)branched C₁-10 alkylcarbonyl], useful for prepg. DNA and RNA labeled with non-radioactive detectable markers as nucleic acid hybridization probes, were prepd. Thus, coupling of 3',5'-di-O-p-toluoyl-5-iododeoxyuridine with BOCNHCH₂C≡CH (BOC = CO₂CMe₃) in EtOAc in the presence of (Ph₃P)2PdCl₂, CuI and Et₃N gave 84% I (Y = H, Z = X = toluoyl, X₁NHR = C≡CCH₂NHBOC). Sapon. of the latter with K₂CO₃ in MeOH followed by reaction with 4,4'-dimethoxytrityl chloride (DMTrCl) in pyridine gave 68% I (X = Y = H, Z = DMTr, X₁NHR = C≡CCH₂NHBOC) which was treated with [(Me₂CH)₂N]2POMe in CH₂Cl₂ contg. tetrazole and (Me₂CH)₂NH to give I [Y = H, Z = CMTr, X = P(OMe)N(CHMe₂)₂, X₁NHR =

STN Columbus

$C\equiv CCH_2NHB(OC)$. The latter can be reacted by the phosphoramidite method to prep. oligonucleotides which incorporate the modified nucleoside on the 5'-end or internally.

IT 114079-33-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acylation of, with nitrophenylaminohexanoate deriv.)

RN 114079-33-3 CAPLUS

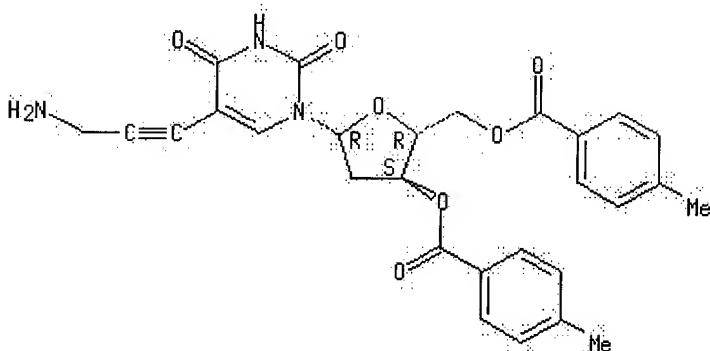
CN Uridine, 5-(3-amino-1-propynyl)-2'-deoxy-, 3',5'-bis(4-methylbenzoate), mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 114079-32-2

CMF C28 H27 N3 O7

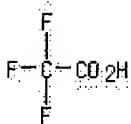
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



IT 114079-31-1P 114079-35-5P

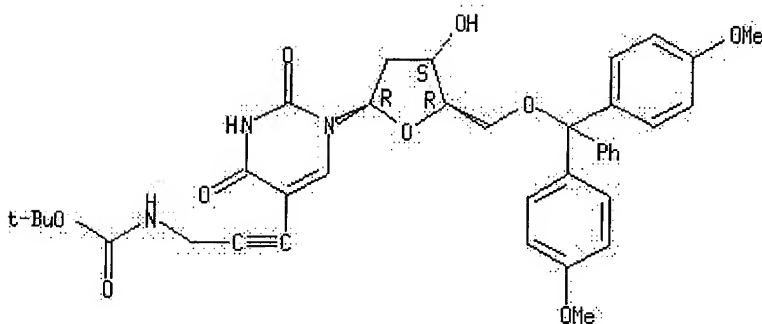
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with bis(diisopropylamino)methoxyphosphine)

RN 114079-31-1 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

STN Columbus

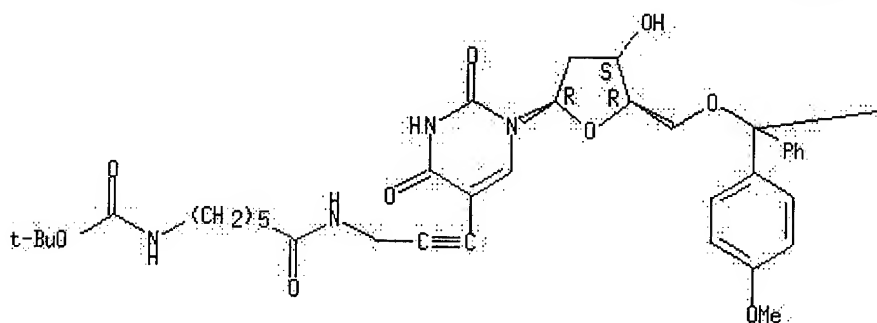


RN 114079-35-5 CAPLUS

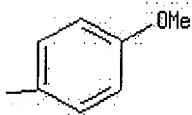
CN Carbamic acid, [6-[[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-deoxy-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 114079-29-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

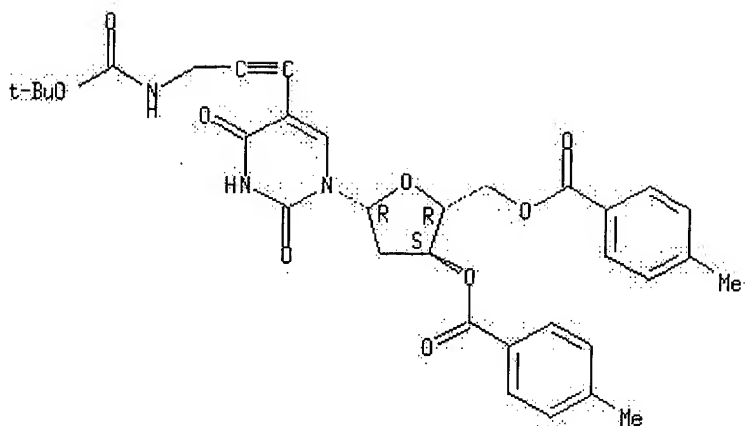
(prepn. and reaction of, in prepn. of nucleic acid marker)

RN 114079-29-7 CAPLUS

CN Carbamic acid, [3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

STN Columbus



IT 114079-34-4P

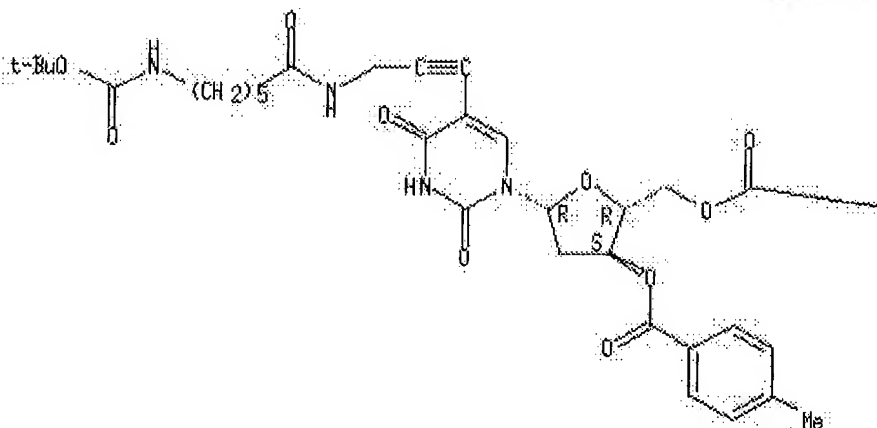
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and sapon.-alkylation of, by dimethoxytrityl chloride)

RN 114079-34-4 CAPLUS

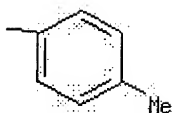
CN Carbamic acid, [6-[[3-[1-[2-deoxy-3,5-bis-O-(4-methylbenzoyl)-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



STN Columbus

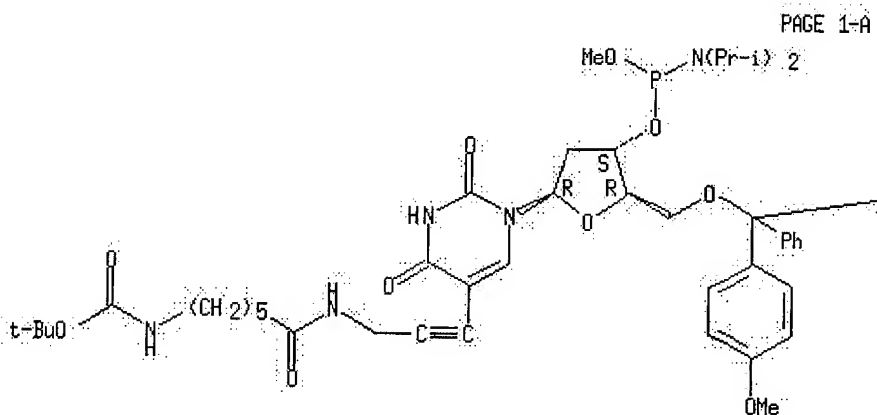
IT 114079-36-6P 114103-42-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for nonradioactive marker-labeled
oligonucleotides)

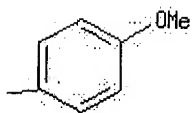
RN 114079-36-6 CAPLUS

CN Carbamic acid, [6-[3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-
[[bis(1-methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-
pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-
propynyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



PAGE 1-B

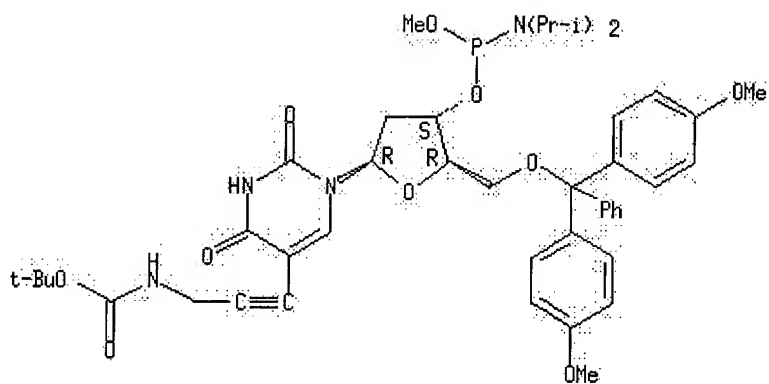


RN 114103-42-3 CAPLUS

CN Carbamic acid, [3-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-
methylethyl)amino]methoxyphosphino]-2-deoxy-β-D-erythro-
pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

STN Columbus



=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

48.59

197.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-3.91

-3.91

STN INTERNATIONAL LOGOFF AT 14:35:17 ON 01 DEC 2003